FACT SHEET

as required by LAC 33:IX.2411, for draft **Louisiana Pollutant Discharge Elimination System Permit** No. **LA0041009; AI 2925; PER20070001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** City of Alexandria
City of Alexandria Wastewater Treatment Plant
Post Office Box 71
Alexandria, Louisiana 71309-0071

II. **PREPARED BY:** Todd Franklin

DATE PREPARED: June 1, 2007

III. **PERMIT ACTION:** reissue LPDES permit LA0041009, AI 2925; PER20070001

LPDES application received: March 5, 2007

EPA has not retained enforcement authority.

Previous LPDES permit effective: May 1, 2002
Previous LPDES permit expires: April 30, 2007

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the City of Alexandria including the England Industrial Airpark.

B. The permit application does indicate the receipt of industrial wastewater. The industrial dischargers include:

Name of Discharger	Flow
Provine School Pictures	0.0157 MGD
Christus St. Frances Cabrini Hospital	0.051 MGD
Petron, Inc.	0.026 MGD
Lee and Overton Snack Shop	N/A
Tangent Rail	0.012 MGD
D.G. Hunter Generating Station	0.002 MGD
AFCO Industries	N/A

C. The facility is located at 1212 Hudson Boulevard in Alexandria, Rapides Parish.

D. The treatment plant is a two stage facultative lagoon system that consists of grit and grease removal, two-stage facultative lagoons, wet weather storage lagoons, clarification, chlorination, dechlorination, and sludge handling processes.

E. Outfall 001

Discharge Location: Latitude 31° 17' 42" North
Longitude 92° 25' 7" West

Description: treated sanitary wastewater

Design Capacity: 22 MGD

Type of Flow Measurement which the facility is currently using: Totalizer

V. RECEIVING WATERS:

The discharge is into the Red River in Subsegment 100201 of the Red River Basin. This Subsegment is not listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of the Red River is 1,740 cfs.

The **hardness value** is 107.6 mg/l and the **fifteenth percentile value for TSS** is 10.8 mg/l.

The designated uses and degree of support for Subsegment 100201 of the Red River Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Not Supported	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Not Supported	N/A	Not Supported	N/A	Full

[1/] The designated uses and degree of support for Subsegment 100201 of the Red River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 100201 of the Red River Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which is listed as an endangered species. Since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as

aquatic habitat, LDEQ has determined that the issuance of this LPDES permit is not likely to adversely affect the Pallid sturgeon or its aquatic habitats. As instructed by the FWS in a letter dated September 29, 2006, from Watson (FWS) to Brown (LDEQ), this fact sheet has been sent to the FWS for review and consultation.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Todd Franklin
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 100201, Red River-Alexandria (Hwy. 165) to Old River Control Structure Diversion Channel, is not listed on LDEQ's Final 2004 303(d) List as impaired, and to date no TMDLs have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD_5	5,504	30 mg/l	45 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size which discharge directly into the Red River.
Total Suspended Solids (TSS)	5,504	30 mg/l	45 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this treatment type and size which discharge directly into the Red River.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

The previous LPDES permit contained limits for Total Residual Chlorine (TRC). As per LAC 33:IX.2707L.2.a.ii, availability of information which was not available at the time of previous permit issuance and will justify the application of less stringent effluent limitations in the proposed permit constitutes an exception to LAC 33:IX.2707.L.1, which states when a permit is renewed or reissued, standards or conditions must be at least as stringent as the final limitations, standards, or conditions in the previous permit. In the previous permit, the water quality based limits were calculated and a limitation of 0.1 mg/l was placed into the permit. Using DMR data from January 2005 through

December 2006, a geometric mean was found for TRC (see Attached). The geometric mean was evaluated in a water quality screen and indicated that there was no need for water quality based limits for TRC. Therefore, due to the facts listed above, water quality based limits for TRC have been removed from the permit.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, September 27, 2001 VERSION 4).

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. LAC 33:IX.1121.B.3. provides for the use of biomonitoring to monitor the effluent for protection of State waters. The biomonitoring procedures stipulated as a condition of this permit are as follows:

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No. LA0041009, **Biomonitoring Section** for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
Chronic static renewal 7-day survival & reproduction test using Ceriodaphnia dubia (Method 1002.0)	once/quarter[1]
Chronic static renewal 7-day survival & growth test using fathead minnow (Pimephales promelas) (Method 1000.0)	once/quarter[1]

[1] Since a WET limit shall be incorporated into this permit, quarterly testing is required for the first five years following the effective date of the WET limit in the new permit. Following successful completion of this period with no demonstrated lethal or sub-lethal effects, a reduction may be appropriate.

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 2%, 3%, 4%, 6%, and 7%. The low-flow effluent concentration (critical low-flow dilution) and WET limit is defined as 6% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in the **Biomonitoring Section** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in the **Biomonitoring Section** of the permit.

The permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of

the permit is subject to the provisions of LAC 33:IX.2903. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0041009: Effective: May 1, 2002
Expired: April 30, 2007

Effluent Characteristic	Discharge Limitations Monthly Avg.	Monthly Avg.	Weekly Avg.	Monitoring Requirements Measurement Frequency	Sample Type
Flow	---	Report	Report	Continuous	Recorder
BOD_5	5,504	30 mg/l	45 mg/l	1/day	12 Hr Comp
TSS	5,504	30 mg/l	45 mg/l	1/day	12 Hr Comp
TRC	NO MEASURABLE			1/day	Grab
Fecal Coliform Colonies/100 ml	---	200	400	1/day	Grab
pH	Range (6.0 su – 9.0 su)			1/day	Grab
Biomonitoring					
Pimephales promelas	---	Report	Report	1/quarter	24 Hr Comp
Ceriodaphnia dubia	---	Report	Report	1/quarter	24 Hr Comp

The permit contains biomonitoring.
The permit contains pollution prevention language.
The permit contains pretreatment requirements

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspections performed for this facility.

Date – March 17, 2005
Inspector – Jason Dewitt, LDEQ
Findings and/or Violations –

1. Inspection revealed that facility has not had any excursions since the last LDEQ inspection.
2. Only one overflow was reported during 2004.
3. DMRs, permit, pH calibration records, and QA/QC records were reviewed and found to be in order.
4. Plant appears to be in good working order.
5. All other paperwork examined was complete and in good order.

Date – March 27, 2006
Inspector – Bill Couvillion, LDEQ
Findings and/or Violations –

- Operations and Maintenance: Several aerator motors were broken on the primary lagoons 1 and 2. However, there were more than enough left for normal operation.

Date – April 16, 2007
Inspector – Madelon Carter, LDEQ
Findings and/or Violations –

1. The LDEQ received the City of Alexandria's application for a water permit renewal on March 5, 2007; whereas, the application was not received 180 days prior to the expiration date of the existing permit.
2. The design capacity of 22 MGD was exceeded on October 20, 2006; December 31, 2006; January 6, 2007; January 17, 2007; and February 2, 2007.
3. The Fecal Coliform parameter grab sample is not being collected during a 24-hour period at peak loads, whereas, the samples are, in general, being collected between 7:30 – 8:00 AM.
4. There was no operation and maintenance manual presented or revealed for the collection system.
5. There were no certified/calibration records presented or revealed for the thermometer in the refrigerated samples at Outfall 001.
6. A GE Panometric Model DF 868 single channel flow meter is utilized as the secondary device to measure flow; however, the yearly calibration is being conducted in-house, and there were no records presented or revealed of calibration checks / internal checks to assure continued compliance.
7. Past calibration of the pH meter is not being conducted as stated in the SOPs.
8. Mr. James Graham, Superintendent of Wastewater Treatment, stated that there were 10 unauthorized discharges of wastewater between March 2006 and March 2007. The LDEQ was not notified of the unauthorized discharges.
9. There were no noncompliance reports presented or revealed of the unauthorized discharges.

B) Compliance and/or Administrative Orders

A review of the files indicates that no recent enforcement actions have been administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning January 2005 through February 2007 has revealed no effluent violations.

XII. ADDITIONAL INFORMATION:

LDEQ reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future. Additional limitations and/or restrictions are based upon water quality studies and can indicate the need for advanced wastewater treatment. Water quality studies of similar dischargers and

receiving water bodies have resulted in monthly average effluent limitations of 5mg/L $CBOD_5$ and 2 mg/L NH_3-N. Prior to upgrading or expanding this facility, the permittee should contact LDEQ to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

The nearest drinking water intake, Bossier City Waterworks, is located upstream from the discharge point. Therefore, monitoring for Toxic Substances is not a requirement of this permit.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 22 MGD.

Effluent loadings are calculated using the following example:

BOD_5: 8.34 lbs/gal x 22 MGD x 30 mg/l = 5,504 lbs/day

The following Monitoring Requirements, Sample Types, and Frequency of Sampling are proposed for this facility. The facility is eligible for a frequency reduction for BOD_5, TSS, and Fecal Coliform, based on no noncompliance over the past two years.

Effluent Characteristics		Monitoring Requirements	
		Measurement Frequency	Sample Type
Flow		Continuous	Recorder
BOD_5		3/week	12 Hr. Composite
Total Suspended Solids		5/week	12 Hr. Composite
Fecal Coliform Bacteria		3/week	Grab
pH		1/day	Grab
Biomonitoring	Ceriodaphnia dubia	1/quarter	24 Hr. Composite
	Pimephales promelas	1/quarter	24 Hr. Composite

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, LDEQ Option 2A Pretreatment Language is required for this facility. This language is established for municipalities with industrial users on their collection system and with an approved pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program", Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, City of Alexandria, City of Alexandria Wastewater Treatment Plant, March 5, 2007.